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<110> Asahi Kasei Kogy. Kabushiki Kaisha

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 Asp Val Glu Ala Tyr Cys Leu Arg Cys Glu Cys Lys Tyr Glu Glu Arg
 85 90 95
 Ser Ser Val Thr Ile Lys Val Thr Ile Ile Ile Tyr Leu Ser Ile Leu
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 Gly Leu Leu Leu Leu Tyr Met Val Tyr Leu Thr Leu Val Glu Pro Ile
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 Leu Lys Arg Arg Leu Phe Gly His Ala Gln Leu Ile Gln Ser Asp Asp
 130 135 140
 Asp Ile Gly Asp His Gln Pro Phe Ala Asn Ala His Asp Val Leu Ala
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 Arg Ser Arg Ser Arg Ala Asn Val Leu Asn Lys Val Glu Tyr Ala Gln
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 Gly Arg Tyr Gly Ala Ile Ser Gly Phe Gly Leu Ser Leu Ile Lys Tyr
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 Ile Leu Ile Val Arg Phe Ser Thr Tyr Phe Pro Gly Tyr Phe Asp Gly

164 165 166
 Gln Tyr Trp Leu Trp Trp Val Phe Leu Val Leu Gly Phe Leu Leu Phe
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 100 105 110
 Arg Ile Gln Glu Glu Glu Cys Pro Pro Arg Asp Asp Phe Ser Asp Ala
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 Asp Gln Leu Arg Val Gly Asn Asp Gly Ile Phe Met Leu Ala Phe Phe
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 Ser Leu Ile Lys Trp Ile Leu Ile Val Arg Phe Ser Asp Tyr Phe Thr
 180 185 190
 Gly Tyr Phe Asn Gly Gln Tyr Trp Leu Trp Trp Ile Phe Leu Val Leu
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 Gly Leu Leu Leu Phe Phe Arg Gly Phe Val Asn Tyr Leu Lys Val Arg
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 Pro Thr Thr Ser Asp Thr Glu Val Tyr Gly Glu Phe Tyr Pro Val Pro
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 Pro Pro Tyr Ser Val Ala Thr Ser Leu Pro Thr Tyr Asp Glu Ala Glu
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 Lys Ala Lys Ala Ala Ala Met Ala Ala Ala Ala Ala Glu Thr Ser Gln
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 Arg Ile Gln Glu Glu Glu Cys Pro Pro Arg Asp Asp Phe Ser Asp Ala
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 Thr Asn Thr Ile Ala Gly Arg Tyr Gly Ala Ile Cys Gly Phe Gly Leu
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 Ser Leu Ile Lys Trp Ile Leu Ile Val Arg Phe Ser Asp Tyr Phe Thr
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 Gly Tyr Phe Asn Gly Gln Tyr Trp Leu Trp Trp Ile Phe Leu Val Leu
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 Gly Leu Leu Leu Phe Phe Arg Gly Phe Val Asn Tyr Leu Lys Val Arg
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Pro Thr Ser Asn Pro Ala Pro Gln Ile Val Gln Ala Val Ser Ser Ala
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cca gca ctt gaa act gac tot tcc cct cca cca tat agt agt att act 195
Pro Ala Leu Glu Thr Asp Ser Ser Pro Pro Tyr Ser Ser Ile Thr
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Val Glu Val Pro Thr Thr Ser Asp Thr Glu Val Tyr Gly Glu Phe Tyr
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<212> PPT

<213> Homo sapiens

<400> 17

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35 40 45
Leu Pro Pro Gly Asp Arg Gly Cys Arg Asn Gly Gly Gly Arg Gly Pro
50 55 60
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65 70 75 80
Glu Asp Ser Leu Ser Arg Lys Pro Asp Pro Glu Pro Gly Arg Met Asp
85 90 95
His His Gln Pro Gly Thr Gly Arg Tyr Gln Val Leu Leu Asn Glu Glu
100 105 110
Asp Asn Ser Glu Ser Ser Ala Ile Glu Gln Pro Pro Thr Ser Asn Pro
115 120 125
Ala Pro Gln Ile Val Gln Ala Val Ser Ser Ala Pro Ala Leu Glu Thr
130 135 140
Asp Ser Ser Pro Pro Pro Tyr Ser Ser Ile Thr Val Glu Val Pro Thr
145 150 155 160
Thr Ser Asp Thr Glu Val Tyr Gly Glu Phe Tyr Pro Val Pro Pro Pro
165 170 175
Tyr Ser Val Ala Thr Ser Leu Pro Thr Tyr Asp Glu Ala Glu Lys Ala
180 185 190
Lys Ala Ala Ala Met Ala Ala Ala Ala Glu Thr Ser Gln Arg Ile
195 200 205
Gln Glu Glu Glu Cys Pro Pro Arg Asp Asp Phe Ser Asp Ala Asp Gln
210 215 220
Leu Arg Val Gly Asn Asp Gly Ile Phe Met Leu Ala Phe Phe Met Ala
225 230 235 240
Phe Ile Phe Asn Trp Leu Gly Phe Cys Leu Ser Phe Cys Ile Thr Asn
245 250 255
Thr Ile Ala Gly Arg Tyr Gly Ala Ile Cys Gly Phe Gly Leu Ser Leu
260 265 270
Ile Lys Trp Ile Leu Ile Val Arg Phe Ser Asp Tyr Phe Thr Gly Tyr
275 280 285
Phe Asn Gly Gln Tyr Trp Leu Trp Trp Ile Phe Leu Val Leu Gly Leu
290 295 300

Leu Leu Phe Ile Arg His Phe Val Asn Tyr Leu Tyr Val Arg Asn Met
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 Arg Arg Arg Ser Gln Arg Val Cys Ala Ser Gly Pro Ser Met Leu Asn
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 Ser Ala Arg Gly Ala Pro Glu Leu Leu Arg Gly Thr Ala Thr Asn Ala
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 Glu Val Ser Ala Ala Ala Ala Gly Ala Thr Gly Ser Glu Glu Leu Pro
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 Thr Thr Ser Ser Thr Gly Val Ala Val Gly Ala Glu His Gly Glu Asp
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 Ser Leu Ser Arg Cys Phe Asp Pro His Pro Gly Arg Met Asp His His
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 Gln Pro Gly Thr Gly Arg Tyr Ala Val Leu Leu Asn Glu His Asp Asn
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 Ser His Pro Tyr Leu Ser His Thr Val His Val Leu Thr Thr Ser
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Glu Val Ser Ala Ala Ala Ala Gly Ala Thr Gly Ser Glu Glu Leu Pro	
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Pro Gly Asp Arg Gly Lys Arg Asn Gly Gly Gly Arg Gly Pro Ala Ala	
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Asp Thr Glu Val Tyr Gly Glu Phe Tyr Pro Val Pro Pro Phe Tyr Ser	
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Val Ala Thr Ser Leu Pro Thr Tyr Asp Gln Ala Gln Lys Ala Lys Ala	
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Leu Ser Gly Leu

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 4118-1846
 4119-INA
 4120-Hom. sapiens

4121-
 4122-112
 4123-68 11 116

4403-24
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 Met Ala Ile Lys Phe Leu Glu Val Ile Lys Pro Phe Cys Val Ile
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 Leu Pro Glu Ile Gln Lys Pro Glu Arg Lys Ile Gln Phe Lys Glu Lys
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 Val Leu Trp Thr Ala Ile Thr Leu Phe Ile Phe Leu Val Cys Cys Gln
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 Ile Pro Leu Phe Gly Ile Met Ser Ser Asp Ser Ala Asp Pro Phe Tyr
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 Trp Met Arg Val Ile Leu Ala Ser Asn Arg Gly Thr Leu Met Glu His
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tct ctg tct acc att tannagctcc cctcttagga caccacatc caccacatc 354
 Ser Leu Ser Gly Leu
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 Met
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gca atc aaa ttt ctg gaa gtc atc aag ccc ttc tct gtc atc ctg ccg 164
 Ala Ile Lys Phe Leu Glu Val Ile Lys Pro Phe Cys Val Ile Leu Pro
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gaa att cag aag cca gag aag aag att cag ttt aag gag aaa gtc ctg 212
 Glu Ile Gln Lys Pro Glu Arg Lys Ile Gln Phe Lys Glu Lys Val Leu
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 Trp Thr Ala Ile Thr Leu Phe Ile Phe Leu Val Lys Cys His Ile Trp
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 Leu Phe Gly Ile Met Ser Ser Asp Ser Ala Asp Trp Val His Ala Val
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ata tac ata gta ttc atc ata ttc ttc ttc gta ttc ttc ttc ata gta 356
 Val Tyr Ile Val Phe Met Leu Gly Ser Cys Ala Phe Phe Ser Lys Thr
 65 70 75

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 Trp Ile Glu Val Ser Gly Ser Ser Ala Lys Asp Val Ala Lys Gln Leu
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 Lys His His His Ser Val Met Arg Gly His Arg His Thr Ser Met Val
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 Tyr Ile Gly Ala Leu Ser Val Leu Ala Asp His Leu Gly Ala Leu Gly
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 His His Leu Asp Arg Tyr Ile Trp Thr Ala Ala Ala His Gly Gly Leu
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Ser Ile Leu Leu Thr Tyr Val Tyr Phe Val Leu Ser Leu Gly Phe Arg
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Ile Met Ala Asn Arg Lys Phe Phe Ala Leu Arg Gly Phe Met Ile Val
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Tyr Asn Phe Ser Leu Val Ala Leu Ser Leu Tyr Ile Val Tyr Phe Phe
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Leu Met Ser Gly Trp Leu Ser Thr Tyr Thr Trp Arg Lys Asp Phe Val
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Asp Tyr Ser Asn Ser Pro Ala Ala Leu Arg Met Val Arg Val Ala Trp
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Leu Phe Leu Phe Ser Lys Phe Ile Gln Leu Met Asp Thr Val Ile Phe
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Ile Leu Arg Lys Lys Asp Gly Gln Val Thr Phe Leu His Val Phe His
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His Ser Val Leu Pro Trp Ser Trp Trp Trp Gly Val Lys Ile Ala Pro
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Gly Gly Met Gly Ser Phe His Ala Met Ile Asn Ser Ser Val His Val
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Ile Met Tyr Leu Tyr Tyr Gly Leu Ser Ala Phe Gly Pro Val Ala Gln
 180 185 190

Pro Tyr Leu Trp Trp Lys Lys His Met Thr Ala Ile Gln Leu Ile Gln
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Phe Val Leu Val Ser Leu His Ile Ser Ala Tyr Tyr Phe Met Ser Ser
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Lys Asn Tyr Gln Tyr Pro Val Ile Ile His Leu Ile Trp Met Tyr Gly
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Thr Ile Phe Phe Met Leu Ile Ser Asn Phe Trp Tyr His Ser Tyr Thr
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Lys Gly Lys Arg Leu Pro Arg Ala Leu Gln Gln Asn Gly Ala Pro Gly
 260 265 270

Ile Ala Lys Val Lys Ala Asn
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411-107
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Thr Cys Ser Cys Cys Cys Leu Tyr Lys Thr Cys Arg Arg Pro Arg Pro
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 Ile Tyr Pro Pro Gly Ser Thr Val Leu Val Gln Gly Gly Tyr Asp Ala
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Phe Ile Val Ser Asn Ile Arg Leu Leu His Lys Gln Arg Leu Leu Phe
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Asp Pro Phe Pro Ile Leu Ser Pro Tyr His Gly Ile Leu Ser Ile Glu
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Reg Ser City Pre City Ala Nat Sen Rep Pres Secy Secy Secy Post Supt Hwy

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Len Joe Ann Eli Len Eli Len Eli Ann Ann Len Tyr Ann Eli Tyr

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Lys Arg Lys Arg Cys Gly Met Cys Ala Pro Cys Arg Arg Arg Ile Asn	
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Cys Glu Gln Cys Ser Ser Cys Arg Asn Arg Lys Thr Gly His Gln Ile	
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Cys Lys Phe Arg Lys Cys Glu Glu Leu Lys Lys Lys Pro Ser Ala Ala	
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Leu Glu Lys Val Met Leu Pro Thr Gly Ala Ala Phe Arg Trp Phe Gln	
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 Met Met Asp Ala Lys Ala Arg Gln Asp Cys Val Lys Glu Ile Gly Leu
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 Ile Glu Asp Asn Glu Leu Asn Ile Val Leu Glu Leu Ala Asp Ala Gly
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 Asp Leu Ser Gln Met Ile Lys Tyr Phe Lys Lys Gln Lys Arg Leu Ile
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 Leu Gly Arg Phe Phe Ser Ser Glu Thr Thr Ala Ala His Ser Leu Val
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 Gly Thr Pro Tyr Tyr Met Ser Pro Glu Arg Ile His Glu Asn Gly Tyr
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 Asn Phe Lys Ser Asp Ile Trp Ser Leu Gly Cys Leu Leu Tyr Glu Met
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 Ala Ala Leu Gln Ser Pro Phe Tyr Gly Asp Lys Met Asn Leu Phe Ser
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 Leu Cys Gln Lys Ile Gln Gln Cys Asp Tyr Pro Phe Leu Pro Gly Gln
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 His Tyr Ser Gln Lys Leu Arg Gln Leu Val Ser Met Lys Ile Lys Pro
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cgttcgtg cctcgtgagg ctggcatgca gg atg gca gga cag ccc ggc cac 173
Met Ala Gly Gln Pro Gly His
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atg ccc cat gga ggg agt tcc aac aac ctg tgc cac acc ctg ggg cct 221
Met Pro His Gly Gly Ser Ser Asn Asn Leu Cys His Thr Leu Gly Pro
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Val His Pro Pro Asp Pro Gln Arg His Pro Asn Thr Leu Ser Phe Arg
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Cys Ser Leu Ala Asp Phe Gln Ile Glu Lys Lys Ile Gly Arg Gly Gln
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Phe Ser Glu Val Tyr Lys Ala Thr Cys Leu Leu Asp Arg Lys Thr Val
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Ala Leu Lys Lys Val Gln Ile Phe Glu Met Met Asp Ala Lys Ala Arg
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cag gac tgt gtc aag gag atc gcc ctg ttt aag cca ctg aac cac cca 461
Gln Asp Cys Val Lys Glu Ile Gly Leu Leu Lys Gln Leu Asn His Pro
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Asn Ile Ile Lys Tyr Leu Asp Ser Phe Ile Gln Asp Asn Glu Leu Asn
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Glu Thr Thr	Ala Ala His Ser Leu Val Gly Thr Pro Tyr Tyr	Met Ser	
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ccg gag agg	atc cat gag aac ggc tac aac ttc aag tcc	gac atc tgg	845
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Cys Asp Tyr	Pro Pro Leu Pro Gly Glu His Tyr Ser Glu	Lys Leu Arg	
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Glu Leu Val	Ser Met Cys Ile Cys Pro Asp Pro His Gln	Arg Pro Asp	
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Ile Gly Tyr	Val His Gln Val Ala Lys Gln Met His	Ile Trp Met Ser	
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1117-41
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Pro Gln Gly Gly Tyr Pro Gln Gly Pro Tyr Pro Gln Gly Gly Tyr Pro
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Gly Gly Tyr Pro Gln Gly Pro Tyr Pro Gln Ser Pro Phe Pro Pro Asn
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 Met Ser His Glu Lys Ser Phe Leu
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 Val Ser Gly Asp Asn Tyr Pro Pro Pro Asn Pro Gly Tyr Pro Gly Gly
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 Pro Tyr Pro Gln Pro Pro Phe Gln Pro Ser Pro Tyr Gly Gln Pro Gly
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 Tyr Pro His Gly Pro Ser Pro Tyr Pro Gln Gly Gly Tyr Pro Gln Gly
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 Pro Tyr Pro Gln Gly Gly Tyr Pro Gln Gly Pro Tyr Pro Gln Gln Gly
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 Pro Gln Ser Pro Phe Pro Pro Asn Pro Tyr Gly Gln Pro Gln Val Phe
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 cca cca cca ggt ggt ggt ggt ggt ggt ggt ggt ggt ggt ggt ggt 498
 Pro Gln Ser Pro Phe Pro Pro Asn Pro Tyr Gly Gln Pro Gln Val Phe
 125 130 135 140

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Gly Pro Pro Ser Tyr Tyr Asp Asn	Ala Asp Pro Pro Ala Thr Asn Trp	143	146	
gat gac aag ayc atc cga cag gcc	ttc atc cgg aag ggg ttc cga ggg	151	154	
Asp Asp Lys Ser Ile Arg Gln Ala Phe	Ile Arg Lys Val Phe Leu Val	154	157	
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Leu Thr Leu Gln Leu Ser Val Thr Leu	Ser Thr Val Ser Val Phe Thr	160	163	
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Phe Val Ala Glu Val Lys Gly Phe	Val Arg Glu Asn Val Trp Thr Tyr	165	168	
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Tyr Val Ser Tyr Ala Val Phe Phe	Ile Ser Leu Ile Val Leu Ser Cys	170	173	
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Cys Gly Asp Phe Arg Arg Lys His	Pro Trp Asn Leu Val Ala Leu Ser	175	178	
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Val Leu Thr Ala Ser Leu Ser Tyr	Met Val Gly Met Ile Ala Ser Phe	180	183	
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Tyr Asn Thr Glu Ala Val Ile Met	Ala Val Gly Ile Thr Thr Ala Val	185	188	
tgc ttc acc gtc gtc atc ttc tcc	atg cag acc cgg tac gag ttc acc	190	193	
Cys Phe Thr Val Val Ile Phe Ser	Met Gln Thr Arg Tyr Asp Phe Thr	190	193	
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Ser Cys Met Gly Val Leu Leu Val	Ser Met Val Val Leu Phe Ile Phe	195	198	
gcc att ctc tgc atc ttc atc cgg	aac cgc atc ctg gag atc gtg tac	200	203	
Ala Ile Leu Cys Ile Phe Ile Arg	Asn Arg Ile Leu Glu Ile Val Tyr	200	203	
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Ala Ser Leu Gly Ala Leu Leu Phe	Thr Cys Phe Leu Ala Val Asp Thr	205	208	
cag ctg ctg ctg gga aac aag cag	ctg tcc ctg acc cca qaa qaa tat	210	213	
Gln Leu Leu Leu Gly Asn Lys Gln	Leu Ser Leu Ser Pro Glu Glu Tyr	210	213	
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Val Phe Ala Ala Leu Asn Leu Tyr	Thr Asp Ile Ile Asn Ile Phe Leu	215	218	
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Tyr Ile Leu Thr Ile Ile Gly Arg	Ala Lys Gln	220	223	

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Gln	Gly	Ala	Gly	Val	Val	Ile	Ala	Val	Gly	Glu	Gly	Val	Ser	Asp	Ala
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Lys	Ala	Gly	Asp	Arg	Val	Met	Val	Leu	Asn	Arg	Ser	Gly	Met	Trp	Gln
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Gln	Glu	Val	Thr	Val	Pro	Ser	Val	Gln	Thr	Phe	Leu	Ile	Pro	Glu	Ala
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Met	Thr	Phe	Gln	Glu	Ala	Ala	Ala	Leu	Leu	Val	Asn	Tyr	Ile	Thr	Ala
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 Pro-Val-Leu-Gly-Ser-Leu-Leu-Asn-Leu-Pro-Gly-Ile-Arg-Ser-Phe-Val
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 Asp-Lys-Val-Gly-Glu-Ser-Asn-Asn-Met-Val
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Glu Asp Cys His Asn Ala Phe Ala Leu Leu Val Arg Pro Pro Thr Glu
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Gln Ala Asn Val Leu Leu Ser Phe Gln Met Thr Ser Asp Glu Leu Pro
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Cys Lys Ala Asp Ala Gln Asn Leu Ile Tyr Thr Ala Asp Pro Gln Ser
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 Met Ser Lys Glu Thr Ile Ile Lys Cys
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 Cys Pro Ala Asn Leu Leu Ser Ser His Arg Ser Leu Val Gln Arg Val
 105 110 115

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 <212> PRT
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<400> 81
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 Ala Asp Ser Ser Ile Phe Asp Ser Lys Val Thr Gln Ile Ser Lys Gln
 20 25 30
 Asn Leu Leu Ile Gly Ser Thr Ser Tyr Val Gln Gln Gln Met Tr His
 35 40 45
 Ile Gln Thr Asn Val Ile Leu Val His Gln Ala Gly Lys Gln His Gln
 50 55 60
 Leu Thr Lys Ala Leu Lys Asp Ile Lys Val Gly Phe Val Lys Met His

85		90		95		100
Ser Val Glu Glu Phe Glu Gly Leu Asp Ser Pro Glu Phe Glu Asn Val	85	90	95			
Phe Val Val Thr Asp Phe Glu Asp Ser Val Phe Asn Asp Leu Tyr Lys	100	105	110			
Ala Asp Cys Arg Val Ile Gly Pro Pro Val Val Leu Asn Cys Ser Gln	115	120	125			
Lys Gly Glu Pro Leu Pro Phe Ser Cys Arg Pro Leu Tyr Cys Thr Ser	130	135	140			
Met Met Asn Leu Val Leu Cys Phe Thr Gly Phe Arg Lys Lys Glu Glu	145	150	155			160
Leu Val Arg Leu Val Thr Leu Val His His Met Gly Gly Val Ile Arg	165	170				175
Lys Asp Phe Asn Ser Lys Val Thr His Leu Val Ala Asn Cys Thr Gln	180	185	190			
Gly Glu Lys Phe Arg Val Ala Val Ser Leu Gly Thr Pro Ile Met Lys	195	200	205			
Pro Glu Trp Ile Tyr Lys Ala Trp Glu Arg Arg Asn Glu Gln Asp Phe	210	215	220			
Tyr Ala Ala Val Asp Asp Phe Arg Asn Glu Phe Lys Val Pro Pro Phe	225	230	235			240
Gln Asp Cys Ile Phe Ser Phe Leu Gly Phe Ser Asp Glu Glu Lys Thr	245	250	255			
Asn Met Glu Glu Met Thr Glu Met Gln Gly Gly Lys Tyr Leu Pro Leu	260	265	270			
Gly Asp Glu Arg Cys Thr His Leu Val Val Glu Glu Asn Ile Val Lys	275	280	285			
Asp Leu Pro Phe Glu Pro Ser Lys Lys Leu Tyr Val Val Lys Gln Glu	290	295	300			
Trp Phe Trp Gly Ser Ile Gln Met Asp Ala Arg Ala Gly Glu Thr Met	305	310	315			320
Tyr Leu Tyr Gln Lys Ala Asn Thr Pro Gln Leu Lys Lys Ser Val Ser	325	330	335			
Met Leu Ser Leu Asn Thr Pro Asn Ser Asn Ala Lys Arg Arg Arg Leu	340	345	350			
Lys Glu Thr Leu Ala Gln Leu Ser Arg Asp Thr Asp Val Ser Pro Phe	355	360	365			
Pro Pro Arg Lys Arg Pro Ser Ala Gln His Ser Leu Ser Ile Gly Ser	370	375	380			
Leu Leu Asp Ile Ser Asn Thr Pro His Ser Ser Ile Asn Tyr Gly Asp	385	390	395			400

Thr Ser Lys Ser Lys Thr Lys Ser Ser Lys Ser Ser Thr Ser Val Ser
 411 411 411
 Ser Lys Ala Ser Ala Asn Thr Ala Val Ala Lys Ala Leu Tyr Ala Thr
 417 417 417
 Glu Ser Asn Tyr Val Asn Ile Leu Ala Thr Ile Ile Ala Leu Phe Ala
 425 441 445
 Val Ser Leu Ala Ala Ala Gly Ala Asn Gly Gly Ser Ile Ile Leu Ala Ser
 431 431 431
 Glu Ala Ile Lys Thr Ile Phe Gly Ser Ile Phe Asp Ile Phe Asp Val
 465 470 470 481
 His Thr Lys Ile Lys Asp Asp Leu Ala Asp Leu Ile Val Asn Tyr Asp
 485 490 491
 Glu Ser Lys Ser Ile Gly Asp Ile Phe Leu Lys Tyr Ser Lys Asp Leu
 500 505 510
 Val Lys Thr Tyr Pro Pro Phe Val Asn Phe Phe Glu Met Ser Lys Glu
 515 520 525
 Thr Ile Ile Lys Cys Glu Lys Gln Lys Pro Arg Phe His Ala Phe Leu
 530 535 540
 Lys Ile Asn Gln Ala Lys Pro Glu Cys Gly Arg Gln Ser Leu Val Glu
 545 550 555 560
 Leu Leu Ile Arg Pro Val Gln Arg Leu Pro Ser Val Ala Leu Leu Leu
 565 570 575
 Asn Asp Leu Lys Lys His Thr Ala Asp Ala Asn Phe Asp Lys Ser Thr
 580 585 590
 Leu Ala Lys Ala Ile Gly Ser Leu Lys Ala Val Met Thr His Ile Asn
 595 600 605
 Ala Asp Lys Arg Lys Thr Ala Ala Ala Lys Ala Ile Phe Asp Val Val
 610 615 620
 Tyr Ala Val Asp Gly Tyr Pro Ala Asn Leu Leu Ser Ser His Arg Ser
 625 630 635 640
 Leu Val Ala Arg Val Ala Thr Ile Ser Leu Gly Ala His Phe Tyr Asp
 645 650 655
 Asn Gly Ala Ala Val Thr Leu Ile Leu Ile Asn Asp Tyr Leu Ala Ile
 660 665 670
 Ala Arg Lys Arg His Lys Val Ile Gly Thr Phe Arg Ser Ile His Gly
 675 680 685
 Ala Thr Asn Ser Ala Ser Leu Lys His Ile His Leu Met Ser Ile
 690 695 700
 Ser Ala Ile Lys Lys Val Leu Asp Ile Arg Ala Thr Ala Arg Tyr His
 705 710 715 720

Gln	Gln	Ala	Gly	Lys	Gln	Gln	Gln	Leu	Thr	Lys	Ala	Leu	Lys	Asp	Ile	
			81													
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Lys	Val	Gly	Phe	Val	Lys	Met	Gln	Pro	Val	Gln	Gln	Phe	Gln	Gly	Leu	
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gat	tct	gaa	gaa	ttt	gaa	aat	gta	ttt	gta	gtc	agg	gac	ttt	gaa	gat	341
Asp	Ser	Pro	Gln	Phe	Gln	Asn	Val	Phe	Val	Val	Thr	Asp	Phe	Gln	Asp	
	91					95					100					
tct	gtc	ttt	aat	gac	ctc	tac	aaq	ggt	gat	tgt	aga	gtt	att	gga	cca	342
Ser	Val	Phe	Asn	Asp	Leu	Tyr	Lys	Ala	Asp	Cys	Arg	Val	Ile	Gly	Pro	
105					110					115					120	
cca	gtt	gta	tta	aat	tgt	tca	caa	aaa	gga	gag	cat	ttg	cca	ttt	tca	440
Pro	Val	Val	Leu	Asn	Cys	Ser	Gln	Lys	Gly	Glu	Pro	Leu	Pro	Phe	Ser	
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tgt	cgc	ccg	ttg	tat	tgt	aca	agt	atg	atg	aat	cta	gta	cta	tgc	ttt	484
Cys	Arg	Pro	Leu	Tyr	Cys	Thr	Ser	Met	Met	Asn	Leu	Val	Leu	Cys	Phe	
			140					145					150			
act	gga	ttt	agg	aaa	aaa	gaa	gaa	cta	gtc	agg	ttg	gtg	aca	ttg	gtc	532
Thr	Gly	Phe	Arg	Lys	Lys	Glu	Glu	Leu	Val	Arg	Leu	Val	Thr	Leu	Val	
		155					160					165				
cat	cac	atg	ggt	gga	gtt	att	cga	aaa	gac	ttt	aat	tca	aaa	gtt	aca	580
His	His	Met	Gly	Gly	Val	Ile	Arg	Lys	Asp	Phe	Asn	Ser	Lys	Val	Thr	
	170					175					180					
cat	ttg	gtg	gca	aat	tgt	aca	caa	gga	gaa	aaa	ttc	agg	gtt	gct	gtg	628
His	Leu	Val	Ala	Asn	Cys	Thr	Gln	Gly	Glu	Lys	Phe	Arg	Val	Ala	Val	
185					190					195				200		
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Ser	Leu	Gly	Thr	Pro	Ile	Met	Lys	Pro	Gln	Trp	Ile	Tyr	Lys	Ala	Trp	
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gaa	agg	gga	aat	gaa	gag	gat	tto	tat	aca	gca	gtt	gat	gac	ttt	aga	724
Glu	Arg	Arg	Asn	Gln	Gln	Asp	Phe	Tyr	Ala	Ala	Val	Asp	Asp	Phe	Arg	
			220					225					230			
aat	gaa	ttt	aaa	gtt	ggt	cca	ttt	caa	gat	tgt	att	gtt	agt	ttc	gtg	772
Asn	Gln	Phe	Lys	Val	Pro	Pro	Phe	Gln	Asp	Cys	Ile	Phe	Ser	Phe	Leu	
		235					240					245				
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Gly	Phe	Pro	Asp	Gln	Gln	Lys	Thr	Asn	Met	Gln	Gln	Met	Thr	Gln	Met	
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Gln	Gly	Gly	Lys	Tyr	Leu	Pro	Leu	Gly	Asp	Gln	Arg	Cys	Thr	His	Leu	
265					270					275						
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Val	Val	Gln	Gln	Asn	Ile	Val	Lys	Asp	Leu	Pro	Phe	Gln	Pro	Pro	Lys	
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tta	ttt	tta	ttt	ttt	ggt	gaa	tat	tta	tta	ttt	ttt	ttt	att	att	att	964
Lys	Leu	Tyr	Val	Val	Lys	Gln	Gln	Trp	Phe	Trp	Gly	Ser	Ile	Gln	Met	

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Gln	Lys	Gln	Ile	Phe	Asp	Val	Val	Tyr	Glu	Val	Asp	Gly	Cys	Pro	Ala	
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 Tyr Ile Ser Lys Gly Ala Val Val Asp Gln Leu Gly Gly Asp Leu Asn
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 Ser Thr Pro Leu His Trp Ala Ile Arg His Gly His Leu Pro Met Val
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Trp His Asp Thr Arg Arg Val Leu Phe Trp Asp Val Met Lys Leu Leu
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 Lys Ile Gln Lys Glu Gln Asp Tyr Gln Arg Tyr Arg Glu Glu Arg Phe
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 Arg Phe Arg Leu Thr Ser Glu Ser Thr Asn Gln Arg Val Leu Trp Trp
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 Ser Ile Ala Gln Thr Val Ile Leu Ile Leu Thr Gly Ile Trp His Met
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94

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Tyr Asn His Gly Tyr Gly Glu Pro Leu Gly Arg Lys Thr His Ile Asp
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95 105 105

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His His Gly His Ile Thr Asn Leu Lys Lys His Thr Ala Tyr Ile Thr
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Asp Leu Arg Met Lys Ser Phe Leu Ala Ile Pro Asn Leu Val Ile Phe
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Thr Leu Leu Pro Pro Gln His Val Gln Gln Leu Asn Leu Arg Ser Thr	1823
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 Phe Leu Ala Ile Pro Asn Leu Val Ile Phe Ala Val Leu Leu Phe Phe
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 Ser Ser Leu His Thr Pro Lys Asn Pro Ile Ala Phe Ala Cys Phe Phe
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 Ile Cys Leu Ile Thr Asp Pro Phe Leu Asp Ile Tyr Phe Ser Gly Leu
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 Ile Pro Gly Phe Ser Ile Phe Gly Ile Phe Trp Met Ile Cys His Ile
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 His Lys Val Tyr Phe Thr His Arg Thr Asp Tyr Asn Ser Leu Asp Arg
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 Ile Met Ala Ser Lys Gly Met Arg His Phe Cys Leu Ile Ser Glu Glu
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 Pro Leu Glu Ser Met Ala His Gly Leu Phe His Glu Ser Gly Asn Tyr
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 Leu Gly Gly Thr Ser Val Gly Tyr Ala Ile Val Ile Pro Thr Asn Phe
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 Tyr Ser Pro Asp Gly Glu Pro Thr Leu Leu Pro Pro His His Val Glu
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 His Leu Asn Leu Arg Ser Thr Gly Met Leu Asn Ala Ile Glu Arg Phe
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His Leu Ser Ile Asp Thr Leu His Ser Lys Leu Lys Ala Phe Leu His
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Val Lys Ser
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Leu	Leu	Pro	Pro	His	His	Val	His	His	Leu	Asn	Leu	Arg	Ser	Thr	Gly	
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